

**UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS**

SINGULAR COMPUTING LLC,

Plaintiff,

v.

GOOGLE LLC,

Defendant.

Civil Action No. 1:19-cv-12551-FDS

Hon. F. Dennis Saylor IV

DECLARATION OF JOSEPH BATES

1. A Note to the Court from Joseph Bates

Your Honor,

I hope you might consider the following ideas as you weigh matters at this stage of our proceedings. It is my humble opinion that this case is more significant than it seems, more than about a few patents, and that it has urgency. Also, it should be settleable, if the parties can be motivated to do so.

2. Bill Gates¹, Elon Musk², Stephen Hawking³, varied Nobel prize winners, and other serious thinkers have written that Artificial Intelligence (“AI”) is the greatest risk to humanity that humanity has sought to develop. We are at an early stage of that development, but already AI is changing the world. Phones now understand what we are saying, cameras know who is passing by, computers create compelling “deep fake” videos of people, living and dead, speaking sentences chosen by others. These are early signs of machines becoming intelligent, already changing how some countries control their populations and causing almost unprecedented centralization of power in certain trillion-dollar companies.
3. It is going to get worse, because AI systems are becoming adept at designing yet better AI systems (for instance, Google’s “AutoML” project). This puts us on a genuine exponential path toward super-intelligent machines. Whoever controls those machines, according to Gates, Hawking, and others, will have world-

¹ Washington Post, Jan 29, 2015, “Bill Gates on dangers of artificial intelligence: ‘I don’t understand why some people are not concerned.’”

² Washington Post, Oct. 24, 2014, “Elon Musk: ‘With artificial intelligence we are summoning the demon.’”

³ Washington Post, Dec 2, 2014, “Stephen Hawking just got an artificial intelligence upgrade, but still thinks AI could bring an end to mankind.”

dominating power. It is why China has set this as a crucial goal, and it is why Google has explicitly done the same, declaring itself an AI company, not a search company. If those entities lose this race, they may actually die. But if they win, the democratic citizens of the world will have lost control of something regarded by serious thinkers as more powerful and dangerous than nuclear weapons.

4. When I was a child in the 1960s, Rosie the Robot from The Jetsons drew me to my life's work, helping develop AI. I have been lucky to be a teacher and scientist at some of the world's great academic centers of AI research. These universities are built on ideas of openness, teaching, sharing, and spreading knowledge to our citizens. This openness, as best as I can judge, is the key to spreading technological power away from the elite and toward our citizens. It is the best way to try to avoid the risks of advanced AI being concentrated in the hands of the few, and is, in my view, what this legal dispute truly is about.
5. Seventeen years ago, after seeing the founders of my field pass away without achieving their life's ambitions, I decided to radically switch my AI efforts from software to hardware. These are very different fields of study, but I had an idea that drove me to make this change.
6. Computers have always had only a tiny fraction of the computing capacity of a human brain. As I contemplated reasons for the failures of my field from 1950 to 2005, terribly limited computing power seemed like a plausible cause. I thought I saw a crazy way toward success - intentionally make computers be bad at arithmetic. This would make them unsuitable for some traditional computing problems, but it would also make them much more efficient than prior computers at solving the enormously complicated but fuzzy sorts of problems humans are good at. Radical new AI hardware would enable the dream, and the dangers, of AI.
7. I decided to commit myself to this path: to technically prove out this crazy new kind of computer, seek patents to justify investors spending money in the future, and then, if that went well, try to interest large entities in scaling up the technology for widespread and open use. I especially wanted the dangerously AI-enabling machines I envisioned to be made available to universities, preferably for free. I judged that open research and education would have the best chance of spreading power from the few to the many, and give humanity the best chance of avoiding the risks that come with this technology.
8. For ten years my family lived almost entirely off our savings. Fortunately the invention worked. It was explained in detail in a patent application, patents were granted, and I entered into discussions with large AI-focused companies, including Google. Those discussions included my requests that any hardware developed be made available for open research and teaching.

9. During this time I also began planning a philanthropic organization, the “Billion Core Consortium”. It would collect funds from those of the world’s wealthy who understood the risks of AI in the wrong hands, unopposed by the right hands, and provide hardware to, at least, those American universities best positioned to do world-leading open AI research. I planned, and plan, to contribute a significant share of any proceeds from Singular’s patents to this cause, along with the machines those proceeds will enable.
10. You have heard some of the history of Google/Singular interactions. In 2013, I presented the crazy invention to a packed room of Google’s best AI researchers, who went on to develop the TPU, following my earlier presentations to X, Google’s “moonshot” research laboratory, in 2011. Google’s actions since these presentations have made my path difficult. It is hard to convince people to contribute to a project whose main technology has been appropriated by a trillion dollar company.
11. Thus, my efforts have been diverted to legal efforts to enforce my rights, instead of advancing the open development of AI. The cause of open development is urgent, it is literally to help protect our people from threats foreign and domestic. There is much still to do, but at age 65 I am no longer young, my memory is not what it was, and my energy is not what it was. I need to focus as soon as possible on what must be done, not on legal battles. In this situation, I believe, justice delayed is worse for the world than mere justice denied.
12. Given the various patents that have been granted, the open continuations, and because I feel so strongly about these matters, I believe we are headed, one way or another, to a jury making a judgment. Rational parties inside Google should understand this. As Singular has only ever wanted reasonable compensation for its inventions, and as the compensation will support a good and urgent cause, it should be possible for Google’s leaders to settle this case. Moving ahead with considering all these matters in your court seems a powerful way to motivate settlement.
13. Most importantly, moving ahead increases the chances of AI being developed for the good of the people, rather than it being, in the hands of nations motivated by power and companies motivated by money, the greatest risk to humanity that humanity has developed.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct to the best of my knowledge.

Executed on May 28, 2021 at Boston, Massachusetts.

/s/ Joseph Bates